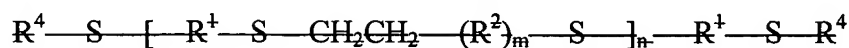


AMENDMENTS TO THE CLAIMS

1-21. (canceled).

22. (currently amended) A polythioether comprising:



wherein

~~$R^1$  is a  $C_{1-10}$  alkyl,  $(R^3Q)_pR^3$  or  $C_6-C_{20}$  aryl where Q is O or S,~~

~~each  $R^3$  is independently  $C_{1-6}$  alkyl, and~~

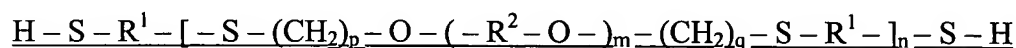
~~$p$  is an integer between 0 and 6,~~

~~$R^2$  is  $C_{1-6}$  alkyloxy or  $C_{5-12}$  cycloalkyloxy,~~

~~$R^4$  is H,  $C_{1-6}$  alkyl alcohol and  $C_{0-6}$  alkyl substituted with  $[CH_2CH_2(R^2)_m]$  X, where X is a halogen,~~

~~$m$  is an integer between 1 and 4, and~~

~~$n$  is an integer selected to yield a molecular weight for said polythioether of between 1000 and 10,000 Daltons.~~



wherein

$R^1$  is selected from the group consisting of  $C_{2-6}$  n-alkylene, and a  $-[(-CH_2)_p-X]_q-(-CH_2)_r-$

group;

$R^2$  is selected from the group consisting of  $C_{2-6}$  n-alkylene, and  $C_{6-8}$  cycloalkylene;

X is selected from the group consisting of O and S;

$m$  is an integer between 0 and 10;

$p$  is an integer between 2 and 6;

$q$  is an integer between 1 and 5;

$r$  is an integer between 2 and 10; and

n is an integer between 1 and 60 selected so that the molecular weight of the polythioether is between 1,000 and 10,000 Daltons.

23. (currently amended) The polythioether of claim 22 wherein R<sup>1</sup> is C<sub>2</sub>-C<sub>8</sub> C<sub>2</sub>-C<sub>6</sub> n-alkylene.

24. (currently amended) The polythioether of claim 22 where R<sup>1</sup> is -[(-CH<sub>2</sub>)<sub>p</sub>-O-]<sub>q</sub>-(-CH<sub>2</sub>-)<sub>r</sub>- where r, p, and q are 2 is ~~(R<sup>3</sup>Q)<sub>p</sub>R<sup>3</sup>—where R<sup>3</sup> in each occurrence is C<sub>1-2</sub> alkylene and p being 1 or 2.~~

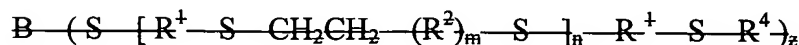
25. (currently amended) The polythioether of claim 22 wherein R<sup>2</sup> is C<sub>1</sub>-C<sub>2</sub> C<sub>2</sub> alkyleneoxy.

26. (currently amended) The polythioether of claim 22 wherein the molecular weight of said polythioether ranges from about 2000 to about 6000 ~~is between 2000 to about 6000~~ 5000 Daltons.

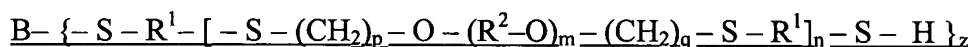
27. (currently amended) The polythioether of claim 22 ~~wherein R<sup>4</sup> is hydrogen having an~~ atomic percentage ratio of C:S:O of 35-49 : 20-60 : 0-20.

28-30. (canceled)

31. (currently amended) A mixture of polythioether polymers comprising:  
a polythioether polymer having the formula



~~where B is a z-valent group of a polyfunctionalizing agent, z is an integer from 3 to 6,~~  
~~R<sup>1</sup> is a C<sub>1-10</sub> alkyl, (R<sup>3</sup>Q)<sub>p</sub>R<sup>3</sup> or C<sub>6</sub>-C<sub>10</sub> aryl where Q is O or S,~~  
~~each R<sup>3</sup> is independently C<sub>1-6</sub> alkyl, and~~  
~~p is an integer between 0 and 6,~~  
~~R<sup>2</sup> is C<sub>1-6</sub> alkyloxy or [[C<sub>5-12</sub>]] cycloalkyloxy,~~  
~~R<sup>4</sup> is H, C<sub>1-6</sub> alkyl alcohol and C<sub>0-6</sub> alkyl substituted with [CH<sub>2</sub>CH<sub>2</sub>(R<sup>2</sup>)<sub>m</sub>] X, where X is a halogen,~~  
~~m is an integer between 1 and 4, and~~  
~~n is an integer selected to yield a molecular weight for said polythioether of between 1000 and 10,000 Daltons.~~



wherein

R<sup>1</sup> is selected from the group consisting of C<sub>2-6</sub> n-alkylene, and a -[(-CH<sub>2</sub>)<sub>p</sub>-X]<sub>q</sub>-(-CH<sub>2</sub>)<sub>r</sub>-

group;

R<sup>2</sup> is selected from the group consisting of C<sub>2-6</sub> n-alkylene, and C<sub>6-8</sub> cycloalkylene;

X is selected from the group consisting of O and S;

m is an integer between 1 and 10;

p is an integer between 2 and 6;

q is an integer between 1 and 5;

r is an integer between 2 and 10;

z is an integer from 3 to 6;

B is a z-valent group of a polyfunctionalizing agent; and

n is an integer between 1 and 60 selected so that the molecular weight of the polythioether is between 1,000 and 10,000 Daltons.

32. (previously ~~added~~ presented) The polythioether mixture of claim 31 wherein z is 3.

33. (currently amended) The polythioether mixture of claim 31 wherein the mixture has an average functionality between ~~2~~ 3 and 4.

34. (previously ~~added~~ presented) The polythioether mixture of claim 33 wherein the average functionality is between 2.05 and 3.00.

35. (currently amended) A curable composition comprising:

~~42 to 80~~ 40 to 80 weight percent of a polythioether polymer according to claim 22,

~~0.3 to 15~~ 5 to 60 weight percent of a ~~lightweight~~ filler and ~~0.1 to 20~~ 10 weight percent of a curing agent.

36. (currently amended) The curable composition of claim 35 further comprising one or more additives selected from the group consisting of: pigments, cure accelerators, ~~surfactants~~, adhesion promoters, thixotropic agents and isopropyl alcohol solvents.

37-40. (canceled).

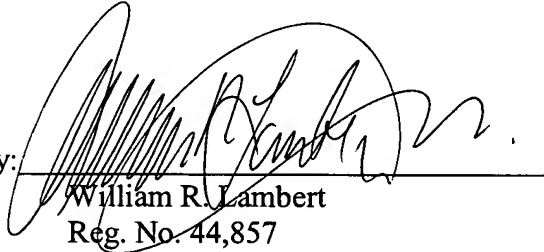
A copy of the Notice of Non-Compliant Amendment is attached. Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: March 16, 2004

By:



William R. Lambert  
Reg. No. 44,857